

CLAIMS

- 1 1. A method for reassembling a packet, the method comprising the steps of:
2 locating a fragment packet descriptor associated with the packet; and
3 placing the contents of the fragment packet descriptor in a packet descriptor asso-
4 ciated with the packet.
- 1 2. The method of claim 1 wherein the step of locating a fragment packet descriptor
2 associated with the packet further comprises:
3 locating an entry in a reassembly table associated with the packet; and
4 dereferencing a pointer held in the entry to locate the fragment packet descriptor.
- 1 3. The method of claim 1 further comprising the steps of:
2 receiving a request to reassemble the packet.
- 1 4. The method of claim 3 wherein the request comprises:
2 an index to an entry in a reassembly table that is associated with the first fragment
3 of the packet; and
4 a length value that is a count of the total number of entries in the reassembly table
5 that are associated with the packet.
- 1 5. The method of claim 1 further comprising the step of:
2 deallocating the fragment packet descriptor.
- 1 6. A computer readable medium that includes computer executable instructions for
2 performing the method recited in claim 1.
- 1 7. An apparatus for reassembling a packet, the apparatus comprising:
2 means for locating a fragment packet descriptor associated with the packet; and
3 means for placing the contents of the fragment packet descriptor in a packet de-
4 scriptor associated with the packet.

- 1 8. The apparatus of claim 7 further comprising:
 2 means for locating an entry in a reassembly table associated with the packet; and
 3 means for dereferencing a pointer held in the entry to locate the fragment packet
 4 descriptor.
- 1 9. The apparatus of claim 7 further comprising:
 2 means for receiving a request to reassemble the packet.
- 1 10. The apparatus of claim 7 further comprising:
 2 means for deallocating the fragment packet descriptor.
- 1 11. A method for reassembling a packet, the method comprising the steps of:
 2 receiving a plurality of fragments associated with the packet;
 3 determining if all the fragments for the packet have been received; and
 4 issuing a request to a reassembly assist function if all the fragments for the packet
 5 have been received.
- 1 12. The method of claim 11 wherein the request comprises:
 2 an index to an entry in a reassembly table that is associated with the first fragment
 3 of the packet; and
 4 a length value that is a count of the total number of entries in the reassembly table
 5 that are associated with the packet.
- 1 13. The method of claim 11 wherein the step of determining if all fragments for the
 2 packet have been received further comprising:
 3 examining a bit map that indicates whether or not the fragments have been re-
 4 ceived.
- 1 14. The method of claim 11 further comprising the step of:
 2 tracking a fragment of the packet.

1 15. The method of claim 14 wherein the step of tracking a fragment of the packet
2 further comprising the steps of:
3 keeping a copy of a packet handle associated with the fragment in a reassembly
4 table; and
5 maintaining a location in a bit map that indicates whether or not the fragment has
6 been received.

1 16. A computer readable medium containing computer executable instructions for
2 performing the method recited in claim 11.

1 17. An apparatus for reassembling a packet, the apparatus comprising:
2 means for receiving a plurality of fragments associated with the packet;
3 means for determining if all the fragments for the packet have been received; and
4 means for issuing a request to a reassembly assist function if all the fragments for
5 the packet have been received.

1 18. The apparatus of claim 17 further comprising:
2 means for examining a bit map that indicates whether or not the fragments have
3 been received.

1 19. The apparatus of claim 17 further comprising:
2 means for tracking a fragment of the packet.

1 20. The apparatus of claim 19 further comprising:
2 means for keeping a copy of a packet handle associated with the fragment in a
3 reassembly table; and
4 means for maintaining a location in a bit map that indicates whether or not the
5 fragment has been received.

- 1 21. A system for reassembling a packet, the system comprising:
2 a processor; and
3 a reassembly assist configured to communicate with the processor;
4 whereby the processor receives a plurality of fragments associated with the packet, de-
5 termines if all the fragments for the packet have been received and issues a request to the
6 reassembly assist to reassemble the packet.